

Amendments to the Claims

1. (currently amended) A communication system, comprising:

at least one community, each community comprised of:

a community service to manage the communication system, wherein managing the communications system includes registering distributed, persistent stores, agents and services and the community service monitors, stops, re-starts, and clones stores, agents and services without requiring administrative intervention;

at least one distributed, persistent store having publish and subscribe capability and communicating using a first protocol; and

at least one double agent, operable to communicate with entities making and receiving telephone calls using a second protocol and the persistent store using the first protocol; and

at least one non-space specific double agent, operable to communicate with persistent stores outside the community using the first protocol by taking any objects from at least one persistent store in the community intended for a persistent store in another community and transferring the objects to the persistent store in another community wherein the objects intended for the persistent store in another community are telephone calls intended for users that are members of the other community.

2. (previously presented) The communication system of claim 1, wherein the at least one double agent further comprises a universal double agent (UDA) capable of communicating with the persistent store and any entity.

3. (previously presented) The communication system of claim 1, wherein the at least one double agent further comprises a morphing double agent (MDA) capable of adopting characteristics to communicate with any entity.

4. (original) The communication system of claim 1, wherein the at least one double agent further comprises at least one device specific double agent.

5. (original) The communication system of claim 1, wherein the at least one non-space specific double agent further comprises a determination agent.

6. (currently amended) A method of providing communications, the method comprising:
establishing a distributed, persistent store having a publish and subscribe capability;
providing a community service to manage a communications system including the persistent store, wherein managing the communication system includes registering persistent stores and other members a community service to manage the communication system, wherein managing the communications system includes registering distributed, persistent stores, monitoring, stopping, re-starting and cloning agents and services without requiring administrative intervention;

inserting an object into the persistent store using a first protocol to communicate with the persistent store, wherein the object is generated by a double agent in communication with a member of a Community placing a telephone call using a second protocol requesting an action;

providing notification to subscribed members of the Community of the insertion of the object into the persistent store; and

transferring objects from the persistent store in the Community to a persistent store in another Community ~~as necessary~~ using a non-space specific double agent communicating with the first protocol because a called user is a member of the other Community.

7. (previously presented) The method of claim 6, wherein the method further comprises reinscrting objects intended for other spaces into the persistent store.

8. (previously presented) The method of claim 6 wherein the persistent store, the double agent and the subscribed members reside on at least two different computing devices.

9. (original) The method of claim 6 wherein the object inserted includes a wrapper addressed for a determination agent.

10. (canceled)

11. (currently amended) A computer-readable medium, wherein the medium includes software code, that when executed, results in:

establishment of a distributed, persistent store having a publish and subscribe capability;
insertion of an object representing an incoming telephone call into the persistent store using a first protocol to communicate with the persistent store, wherein the object is generated by a double agent in communication with a member of a Community ~~requesting an action~~ placing the call;

providing notification to subscribed members of the Community of the insertion of the object into the persistent store; and

transferring objects from the persistent store in the Community to a persistent store in another Community ~~as necessary when a called user does not reside in the Community~~ using a non-space specific double agent communicating with the first protocol.

12. (original) The computer-readable medium of claim 10, wherein the medium is comprised of at least two computing devices.

13. (currently amended) A network device including a processor and a memory, the processor configured to:

- establish a distributed, persistent store in the memory;
- execute an agent to generate an object in response to a request from a member of a Community using a second protocol to communicate with the member;
- provide a community service for registering persistent stores and agents within a community, the community service being self-healing in that agents and services within a Community are monitored, stopped, re-started, and cloned by the community service without requiring administrative intervention; and
- insert the object into the persistent store using a first protocol, wherein the persistent store provides notification to subscribed members of the Community of the insertion of the object into the persistent store by taking any objects from at least one persistent store in the community intended for a persistent store in another community and transferring the objects to the persistent store in another community using a non-space specific double agent communicating with the first protocol.
14. (previously presented) The communications system of claim 1, further comprising a Dynamic Host Configuration Protocol object residing in the persistent store to provide network addresses to members of the community.
15. (previously presented) The communications system of claim 1, further comprising a Lightweight Directory Access Protocol object residing in the persistent store to provide a directory of services.
16. (currently amended) A method of providing communications, the method comprising:
- receiving a telephone call from a first user;

using a double agent to generate an object representing the telephone call, wherein the object identifies a called party and the double agent communicates with the first user using a first telephone protocol;

inserting the object into the persistent store using a ~~first~~ second protocol;

providing notification to subscribed members of the Community of the insertion of the object into the persistent store;

determining that the object is unresolvable by any member of the community because the called user does not reside in the community;

transferring the object from the persistent store in the Community to a persistent store in another Community in which the called user resides using a non-space specific agent communicating with the first protocol;

resolving the object in the other community; and

sending a call notification to the called party using a third telephone protocol.

17. (currently amended) A network device, comprising:

means for establishing a distributed, persistent store in the memory;

means for executing an agent to generate an object in response to an incoming telephone call request from a member of a Community using a first protocol;

means for providing a community service for registering persistent stores and agents within a community, the community service being self-healing in that agents and services within a Community are monitored, stopped, re-started, and cloned by the community service without requiring administrative intervention; and

means for inserting the object into the persistent store using a second protocol, wherein the persistent store provides notification to subscribed members of the Community of the

insertion of the object into the persistent store ~~by~~and taking any objects from at least one persistent store in the community intended for a called user residing at a persistent store in another community and transferring the objects to the persistent store in another community using a non-space specific double agent communicating with the second protocol.